The MT Laboratory Sentinel

Updates from the MT Laboratory Services Bureau
http://healthlab.hhs.mt.gov/ 01/28/2010

Influenza Testing at the MT Public Health Laboratory

During the past three weeks, MTPHL tested 131 specimens for influenza with H1N1 being detected in only one specimen. Testing updates are posted weekly on the MTPHL website at http://www.dphhs.mt.gov/PHSD/Lab/environ-lab-index.shtml

Echinococcus granulosus in Wolves

Recently there has been a lot of attention paid to *Echinococcus granulosus* in wolves. In response to that interest Jennifer Ramsey (FWP's wildlife veterinarian) put together a fact sheet containing information about the parasite and its role as a zoonotic disease. (See attached sheet).

E. granulosus typically infects domestic dogs or wolves as a definitive host, and wild or domestic ungulates as the intermediate host. *E. multilocularis* primarily infects foxes, coyotes, or wolves as a definitive host, and rodents as an intermediate host. Each of these parasites can sometimes infect other animals, and humans.

There is some risk of humans becoming infected with Echinococcus. Echinococcus infection in humans can lead to development of cysts in organs such as the lungs, liver or brain, just as it does with other intermediate hosts. Cysts may develop over prolonged periods of time (10-15 years) before any clinical signs are evident. Treatment may involve surgical removal of cysts and treatment with anthelmintic medications. To become infected, a human must ingest parasite eggs, which are passed with the feces of an infected canine. Eggs could be ingested while consuming vegetation or drinking water that has been contaminated with feces. Humans could also become infected by not washing their hands before eating if they've handled canine scats or contaminated canine fur. Read more at CDC.gov.

Thank you to MT Laboratory Forum members Neil Anderson and Dr. Bill Layton for bringing this interesting subject to our attention.

TUBERCULOSIS IN MONTANA

State of the art diagnostic testing available

Recent advances in TB diagnostic testing have markedly reduced the time necessary to detect TB, and to detect certain drug resistant strains. The January issue of *Montana Public Health* describes TB cases reported in MT during the last ten years and TB diagnostic testing available through the Montana Public Health Laboratory (MTPHL). To read more http://www.dphhs.mt.gov/PHSD/prevention_opps/MT-PH-prevent-opps-newsletters.shtml

For article suggestions, contact Kathy Martinka, Laboratory Bioterrorism Coordinator kmartinka@mt.gov 406-444-0944

Association of Public Health Laboratories E-Update Jan 21, 2010

Extraordinary Measures – New Film Focuses Attention on Rare Neuromuscular Condition

A new Harrison Ford film, *Extraordinary Measures*, is scheduled for release on Friday, January 22. This film follows the true story of a family struggling with a rare, neuromuscular condition known as **Pompe Disease, also known as Acid Maltase Deficiency**. Pompe Disease Support Groups hope that this film will gain the publicity necessary to help them reach out to the public, patients, families, medical professionals and politicians, as well as emphasize the importance of newborn screening programs. Read more at http://www.salem-news.com/articles/january172010/pompe.php

H1N1 Mutations Detected

The Centre for Health Protection of the Hong Kong Department of Health has made two more detections, for a total of nine, of a human swine influenza virus strain with **mutation** similar to the one reported by Norway last year. The detections arose from an ongoing surveillance program of virus isolates by the Centre's Public Health Laboratory Service Branch. The WHO has stated that this mutation has been detected in virus isolates from around 20 countries or areas and currently does not appear to pose a major public health issue. Read more at http://7thspace.com/headlines/331036/two_more_norwegian_like_mutations_of_human_swine_influenza_virus_detected.html

Red Blood Cell Morphology – DVD Training Course

This basic hematology course on red blood cell (RBC) morphology addresses RBC production with sections on erythropoiesis, maturation, reticulocytes and hemoglobin. This course includes a section on RBC morphology that addresses analyses, indices and poikilocytes with images to aid learners in proper identification of cell changes. This basic level program is designed for laboratory practitioners from hospitals, clinics, independent labs and physician office laboratories. Read more: https://www.aphlnet.org/eweb/DynamicPage.aspx?webcode=EventInfo&RegPath=EventRegFees&REg_evt_key=fd855766-49d7-4a29-8fd3-039a561db9ad

Drug-Resistant HIV Wave

Threatens Decades of Drug Progress

A recent study published online by *Science* found that a wave of drug-resistant HIV emerging in the US threatens to undermine progress made in treating patients in poor countries. This stems from the fact that poorer nations such as South Africa have little access to back-up medicines when resistance occurs. Patients in developed countries are less likely to suffer because they have better access to alternative treatments. Read more at: http://www.businessweek.com/news/2010-01-14/mutant-hiv-wave-threatens-decades-of-drug-progress-study-finds.html

MT Communicable Disease Update as of 01/22/10

This newsletter is produced by the Montana Communicable Disease Epidemiology Program.
Questions regarding its content should be directed to 406.444.0273 (24/7/365).
http://cdepi.hhs.mt.gov

DISEASE INFORMATION

Summary – Weeks 1 & 2 – Ending 01/09/10 and 01/16/10 – Disease reports received at DPHHS during the reporting period – January 3-16, 2010 included the following:

- Vaccine Preventable Diseases: invasive *Streptoccocus pneumoniae* (1), Varicella (10)
- Enteric Diseases: Amebiasis (2), Campylobacteriosis (4), Cryptosporidiosis (4), Giardiasis (2), Salmonellosis (8)
- Other Conditions: Hepatitis C, Acute (1)
- Travel Related Conditions: None

NOTE: The report has multiple pages reflecting the following information: (1) vaccine preventable and enteric diseases YTD; (2) other communicable diseases YTD; (3) cases just this week; (4) clusters and outbreaks; and (5) an STD summary.

THE "BUZZ"

Influenza

During weeks 1 & 2 (1/2/10 & 1/16/10), influenza activity continued to decrease in the U.S., with no states reporting widespread activity and 12 states regional activity by 1/16/10.

UPDATE! Activity in Montana – Activity in Montana was lowered to the **SPORADIC** level. There are still cases being reported; however, the number of PCR confirmed cases has dropped significantly. Information on testing can be found at http://www.dphhs.mt.gov/PHSD/Lab/environ-lab-index.shtml. ***2009 influenza A (H1N1) continues to predominate - no other subtypes of influenza A are circulating at this time in Montana.***

A MESSAGE FROM THE CDC – NEW! As the 2009-2010 influenza season progresses, we would like to remind public health officials of the importance of detecting changes in influenza activity across the country.

- *Testing*, including sub-typing of influenza A viruses (i.e, PCR to state) to detect both pandemic and seasonal influenza strains, should continue for all *hospitalized and severely ill patients*, including patients aged >65 years.
- Timely *reporting of all pediatric deaths* associated with laboratory-confirmed influenza remains essential to detecting changes in severity of disease among children.
- *Continued reporting of ILI cases through ILINet (sentinel providers)* will be important to tracking peak influenza activity.
- Health-care providers should continue *reporting to local or state health departments any particularly severe or unusual influenza cases* or cases among specific vulnerable groups, such as pregnant women, immunocompromised persons, and health-care workers.
- *Institutional closings or clusters of influenza* infections in prisons, schools, colleges, and long-term care facilities should also be reported through state and local health departments.
- Any adverse reactions to antiviral medications or to influenza vaccines should continue to be reported via the Vaccine Adverse Event Reporting System.

Changes in the geographic spread, type, and severity of circulating influenza viruses will continue to be monitored with updates reported weekly in the online national influenza surveillance summary, FluView.

Even though influenza incidence is decreasing, influenza is unpredictable and there may be increases in disease again. People who have not been vaccinated should get vaccinated now!

INFORMATION / ANNOUNCEMENTS

NEW! Tuberculosis Testing – The January issue of *Montana Public Health* describes TB cases reported in Montana during the last ten years and TB diagnostic testing available at or through the Montana Public Health Laboratory (MTPHL). It is a particularly good issue to share with clinicians, as it reviews state of the art testing in Montana for tuberculosis. (http://www.dphhs.mt.gov/PHSD/prevention_opps/pdf/MPHJan10.doc)

Communicable Disease Update continued on page 2

NEW! PBS Program on H1N1 Influenza Epidemic - The Immunization Action Coalition (IAC) has a copy of the video "Anatomy of a Pandemic", a one hour PBS NewsProgram that discusses the science and policy issues related to the 2009 H1N1 influenza pandemic. Go to go to: http://www.immunize.org and click on the image under the words Video of the Week. It may take a few moments for the video to begin playing; please be patient!

Diarrheal Disease and Food Recalls

E.* coli 0157:H7 Outbreak and Related Beef Recall -** On December 24, 2009, the United States Department of Agriculture's Food Safety and Inspection Service (FSIS) issued a recall notice for 248,000 pounds of beef products from National Steak and Poultry that may be contaminated with *Escherichia coli* O157:H7 (*E. coli* O157:H7). The recall was issued after FSIS determined there was an association between non-intact steaks (blade tenderized prior to further processing) and illnesses in Colorado, Iowa, Kansas, Michigan, South Dakota and Washington. As of Monday, January 4, 2010, 21 persons from 16 states were reported to be infected with the outbreak strain. Illness onset dates ranged from October 3 through December 14, 2009. ***As of January 22, 2010, no reports of E. coli O157:H7 associated with this recall have been received in MT. For more information on this outbreak and the associated product recall, go to: http://www.cdc.gov/ecoli/2010/index.html.

Multistate Outbreak of Salmonellosis Associated with Water Frogs – In an MMWR Report published on January 8, 2010, the CDC reported on a national outbreak of *Salmonella typhimurium* associated with water frogs. As of December 30, 2009, there were 85 human isolates with the outbreak strain from 31 states. In a multistate case-control study, exposure to frogs was found to be significantly associated with illness and in 14 cases, there was specific exposure to an exclusively aquatic frog species, the African dwarf frog. This is the first reported multistate outbreak of *Salmonella* infections associated with amphibians. Educational materials aimed at preventing salmonellosis from contact with reptiles should be expanded to include amphibians, such as aquatic frogs. CDC has published guidelines for consumers on how to reduce the risk for *Salmonella* infection from amphibians and reptiles. (http://www.cdc.gov/salmonella/typh1209/index.html).